

REMARKS/ARGUMENT

Claims 1-4 are pending. Claim 1, the only independent claim, has been amended without narrowing its scope.

Claims 1, 2 and 4 were rejected under 35 U.S.C. § 103 over U.S. Patent 6,175,550 (Van Nee). Applicant traverses and submits that independent claim 1 is patentable for at least the following reasons.

Independent claim 1 is directed to a multi-rate transmission apparatus in which a coding ratio is varied in accordance with an input modulation operation mode to allow a transmission operation with a single input clock signal for any input modulation mode. The apparatus comprises: data processing means for reading in data having a bit width suitable for a modulation system corresponding to the input modulation mode, coding means for performing coding processing parallelly for the data read in by the data processing means, and transmission means for transmitting the data, for which the coding processing has been performed, in accordance with the modulation system and the varied coding ratio.

By virtue of the recited structure, transmission operation can be effected on the basis of a single input clock signal, even when the modulation mode is varied. For example, when the apparatus is set so as to be operating at the maximum transfer rate, the apparatus can transmit even with a relatively slow input clock by, for example, performing coding in a parallel manner. See specification at page 9, lines 15 through 26. Thus, even if the modulation system or the coding rate is varied to raise the data transfer rate, circuit operation and transmission operation can be performed always with the single clock signal.

On the other hand, in Van Nee, the control circuitry 15 scales operating parameters, such as the transmission rate, *by controlling the clock 17 to adjust the time base* to the IFFT 16. That is, in Van Nee, the signal from the clock *is changed* on the basis of a change in transmission rate. It is not a single signal at all. Rather, the clock produces *different signals* depending on the transmission rate desired.

This is quite different from the invention defined in claim 1 in which a *single* clock *signal* is used even when the coding ratio is varied in accordance with an input modulation operation mode. In the Office Action, the Examiner took the position that Van Nee actually does show transmission operation with a single input clock signal in accordance with the input modulation mode. However, as mentioned above, in Van Nee, different signals would be provided with different modulation modes.

Moreover, in claim 1, the coding ratio is varied in accordance with an input modulation mode so that a *single* input clock signal can be used. Although the present language of claim 1 is believed to clearly recite the noted feature, claim 1 has been amended to recite that coding ratio is varied in accordance with an input modulation operation mode to allow a transmission operation with a single input clock signal for *any* input modulation mode. This is believed simply to restate what was already claimed and does not narrow the claim.

For at least the reasons set forth above, claim 1 is believed clearly to be distinguished over Van Nee.

The other claims in this application are each dependent from independent claim 1 discussed above and are therefore believed patentable for the same reasons. Since each

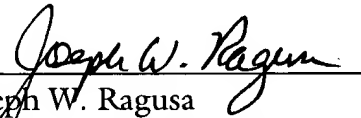
dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

This Amendment After Final Rejection is believed clearly to place this application in condition for allowance and its entry is therefore believed proper under 37 C.F.R. § 1.116. At the very least, however, entry of this Amendment After Final Rejection, as an earnest effort to advance prosecution and reduce the number of issues, is respectfully requested.

In view of the foregoing remarks, Applicant respectfully requests favorable reconsideration and early passage to issue of the present application.

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Respectfully submitted,

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